DORS 200 M1

USER MANUAL

English

CONTENTS

Appearance 4

Device Features 5

Safety Precautions 5

Operation 6

Operating Modes 8

Error Codes and Diagnostic Messages 11

Device Care 12

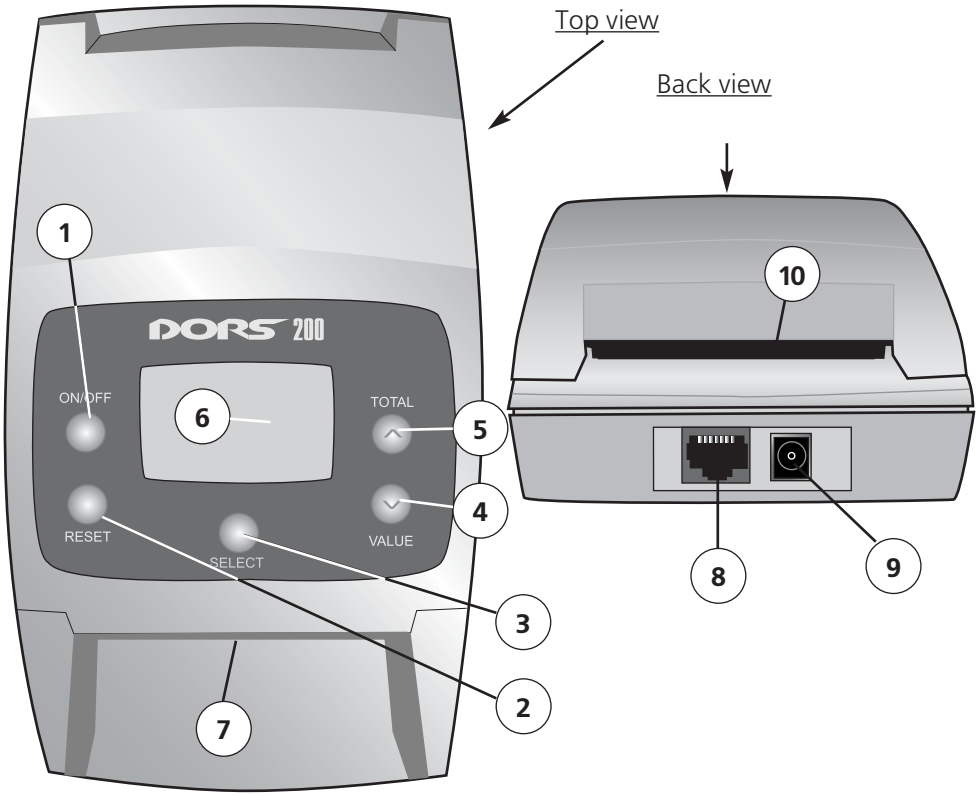
Specifications 13

Complete Set 14

Transportation and Storage 14

READ THIS MANUAL THOROUGHLY
BEFORE OPERATING THE DEVICE!

APPEARANCE



1. **ON/OFF button**. Used to switch the device on/off.

2. **RESET button.** Resets the results of banknote checking. Allows to exit the menu.

3. **SELECT button.** Allows entering the menu, selecting the menu items.

4. **VALUE button.** Switches on the mode of displaying the sum/quantity of the banknotes checked by denomination. Allows scrolling down the menu items.

5. **TOTAL button.** Switches on the mode of displaying the total sum and quantity of the checked banknotes. Allows scrolling up the menu items.

6. Multifunctional graphical display.

7. Input tray.

8. External device socket.

9. AC adapter jack.

10. Ejection slot.

DEVICE FEATURES

Automatic banknote detector Dors 200 M1 (hereinafter - 'the device') is a further development of the previous **Dors 200** model and is intended for authentication of the US dollar banknotes.

The device checks validity of the magnetic marks, IR marks, ink optical properties in various wavelength ranges and the banknote optical image. The banknote authenticity is determined on the basis of an integral estimate of all of the above-mentioned parameters.

The device guarantees a higher counterfeit banknote detection accuracy compared to other devices.

SAFETY PRECAUTIONS

1. Avoid any metal objects or liquid from getting into the device.

2. To prevent electrical shock, do not remove the power cord plug from the wall outlet with wet hands.

3. Use only the AC adapter supplied with the device.

4. When disconnecting the device from the wall outlet, hold the plug; do not pull the cord as it can rupture or sustain damage.

5. If you wish to move the device, disconnect it from the wall outlet to prevent damage to the power cord or short circuit.

6. If the device has been exposed to low temperature for a long period of time, keep it at room temperature for at least two hours before switching on.

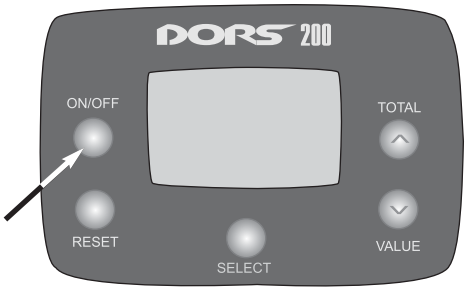
7. The following instructions should be observed to ensure a durable operation of the device without any assistance from a service engineer:

    a. Avoid installing the device in places where it can be exposed to the direct sunlight or accent lamplighting.
    b. The device must be installed on a flat horizontal surface.
    c. Do not install the device in dust-affected rooms. Dust may have a negative impact on the quality of checking.
    d. To prevent fire or short circuit, avoid installing the device in places where it may be subjected to smoke or vapour.

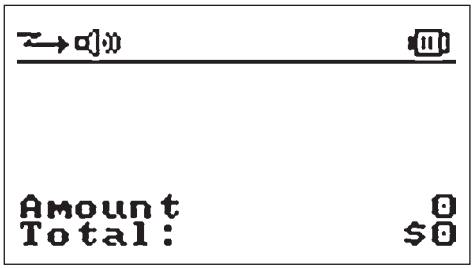
OPERATION

1. Connect the detector to the wall outlet using the supplied AC adapter.

2. Brief pressing of the **ON/OFF** button switches the device on.



The device startup time does not exceed 4 seconds. Self-check is carried out simultaneously with the splash screen being displayed. The splash screen is replaced with a diagnostic error message together with the error description if any of the tests is unsuccessful. The splash screen is displayed for 3 seconds, whereupon it is replaced by the main operating mode (TOTAL) window.

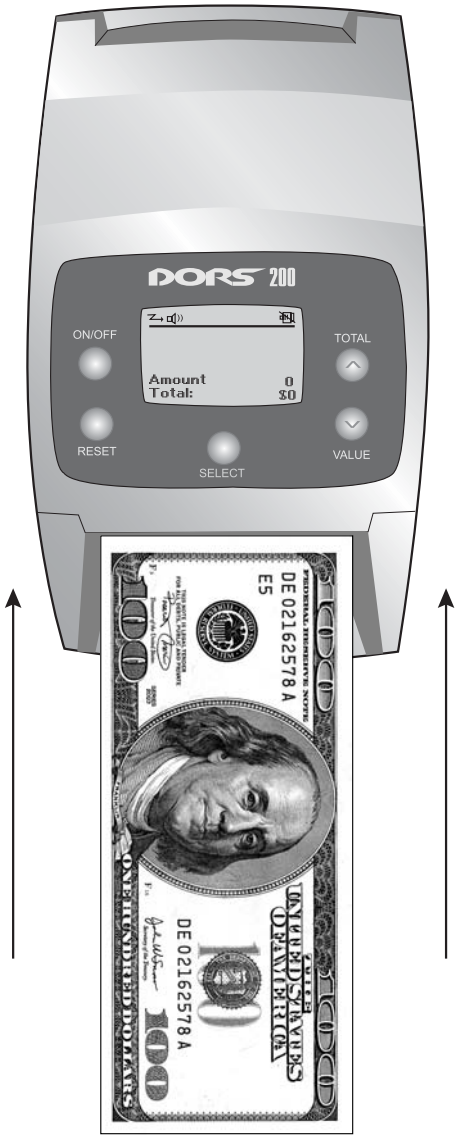


3. If required, enter the menu mode and select the required operating mode.

4. Place the correctly oriented banknote into the input tray (face up, black seal forward).

5. The device will take the banknote from the tray for checking. If the banknote is recognized as authentic, its face value will appear on the display and the banknote will be ejected through the slot in the rear panel of the device (the banknote is returned into the input tray if the mode of rolling back all the banknotes is activated). If the banknote is recognized as suspicious, it will be returned into the input tray and the error sound signal will be emitted (if the sound alarm is on or if the **Back** mode is activated). An error message with a brief description of the error will appear on the display. If the banknote is not recognized as authentic three times, a visual test of other authenticity criteria matching is required.

6. To switch the device off hold down

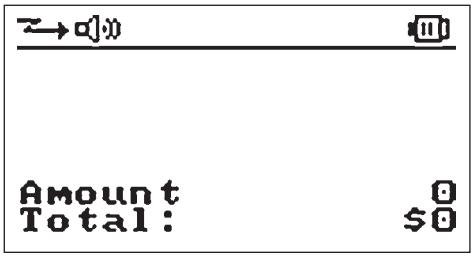


the **ON/OFF** button for more than 2 seconds. If the power saving function is activated and the device is not used during the specified time, it will be switched off automatically.

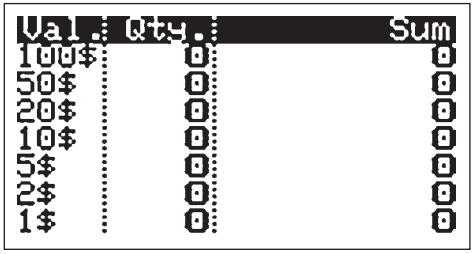
OPERATING MODES

The device supports three basic operating modes:

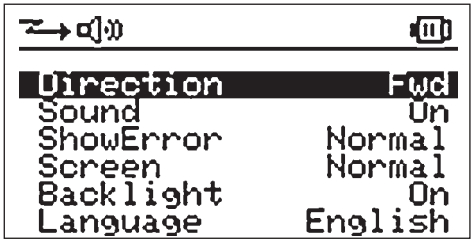
1. **The main mode** - the device goes into this mode immediately after it is switched on, once a banknote is passed through or the **TOTAL** button is pressed.



2. **The mode of detailed reporting by banknote denomination** is activated by pressing the **VALUE** button.



3. **The menu mode**. This mode allows changing some parameters of the device operation and is activated by pressing the **SELECT** button.



When the **main mode** is active, the screen may be nominally divided into three logical zones (starting from the top):

1. The line of icons displaying current operating mode of the device (from right to left):

1.1. The indicator of the banknote ejection direction. Banknotes recognized as authentic are by default returned through the rear slot and those that are suspicious are returned into the input tray. It is the main operating mode of the device (→). There is also an additional mode when all the banknotes are returned into the input tray (↩).

1.2. The sound indicator. The sound alarm may be switched on (🔊) and off (🔇). This applies to the buttons pressed confirmation, return of a suspicious banknote sound alarm in the Fwd mode and the device on/off confirmation signal.

Note: Suspicious banknote returning sound alarm is not turned off in the Back mode.

1.3. PC-link indicator. PC-link may be switched on (🖳) and off (🖳).

2. The result of checking the last banknote. This part of the display shows face value of the checked banknote or an error message and a brief description of the error if the

banknote is recognized as suspicious.

3. The line displaying total quantity of the banknotes checked and the line displaying total sum.

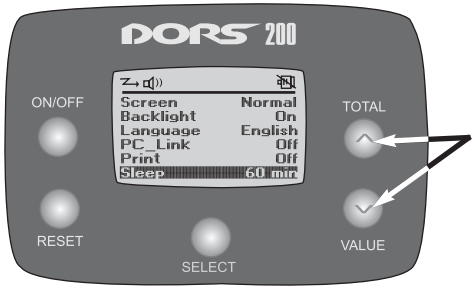
When a banknote is fed into the input tray, the motor starts and the banknote is taken for checking. When checking is completed, the banknote is returned to the input tray or ejected through the slot in the device rear panel, depending on both the settings and the result of checking; the banknote face value or an error message (if the banknote is recognized as suspicious) is displayed. If the device was operating in the **mode of detailed reporting by denomination** (VALUE), the device automatically switches into the TOTAL mode. Pressing the **RESET** button and holding it down for 1 second deletes the data on the checked banknotes. If the top door of the switched device is open, the message 'Door open' will be displayed, and the device will not respond to the buttons pressed and banknotes placed to the input tray for as long as the door remains open. If the automatic off mode is set, the device will switch off at the specified time regardless of whether the door is closed or not.

In the VALUE mode the display shows the data on all banknotes checked during the current session, grouped in three columns:

1. **Val.** - banknotes denomination.
2. **Qty.** - quantity of the banknotes by denomination.
3. **Sum** - the sum of the banknotes of given denomination.

When the **RESET** button is held pressed for 1 second, the data on the banknotes checked are deleted and device is switched to the TOTAL mode.

Certain operating parameters of the device may be changed in the menu mode. To enter the menu, depress the **SELECT** button for a short time. The **TOTAL** (to move upwards) and **VALUE** (to move downwards) buttons are used to navigate through the menu items.



The current menu item is highlighted. A successive pressing of the **SELECT** button changes the selected parameter. In this case all possible values for a given menu item will be selected cyclically. To exit the menu mode press the **RESET** button briefly or the menu is exited automatically after 30 seconds of inactivity. All changes are stored and will be used in the current working session as

well as in all the following ones until the new changes are introduced. The following menu items are available:

1. **Direction** - the direction of ejecting the banknotes recognized as authentic. Fwd - the banknotes are returned through the slot in the device rear panel. Back - all banknotes are returned to the input tray.

2. **Sound** - switching on / off of the sound alarm. On - the sound alarm is switched on. Off - the sound alarm is switched off.
   Note: suspicious banknote returning sound alarm stays turned on in the Back mode.

3. **ShowError** - displays the message on suspicious banknotes. Invert - the message is displayed in an inverse form. Normal - the message is displayed directly.

4. **Screen** - direct and inverse displays of all data. Normal - all data are displayed in a direct form. Invert - all data are displayed in an inverse form (light color letters and symbols on a dark background).

5. **Backlight** - switches the display backlight on or off. On - the backlight is switched on. Off - the backlight is switched off.

6. **Language** - selection of the user interface language. You may choose from English (by default) and Russian.

7. **PC–Link** - switching on and off the connection to a PC with a special software installed for efficient deposit reconciliation. On - PC-Link function is switched on. Off - PC-Link function is switched off.

8. **Print** - switching on/off the function of printing the report on the banknotes checked (optional).

9. **Sleep** - automatic switch-off time selection. If the device remains idle during the specified time interval, it automatically switches into the 'off' state.

Options: **Off** - the automatic switch-off is disabled. **120 min./ 60 min./ 30 min./ 10 min.** - the device is switched off after the specified time. Time count-down starts with the last pressing of any button or checking the last banknote.

**With the power off the device stores all the settings automatically;
once the device is switched on again,
it resumes operating in the last active mode.**

ERROR CODES AND DIAGNOSTIC MESSAGES

BANKNOTES CHECK ERRORS

1. **Error Hardware** - the banknote length is excessive or a banknote is jammed in the device. In the former case the banknote has to be removed manually by opening the top door of the device.

2. **Error Length** - the banknote has a length deviation exceeding the permissible value.

3. **Error Double** - the banknote is too thick or more than one banknote was fed through.

4. **Error Transparent** - the banknote optical density is too low.

5. **Error IR Level** - spectral properties of the banknote ink do not correspond to the standard properties.

6. **Error IR Image** - banknote IR pattern does not correspond to the standard one.

7. **Error Recognition** - the banknote is unrecognized due to the magnetic or optical image mismatch.

8. **Error Overflow** - the total sum exceeds 9999999.

SELF–CHECK ERRORS

1. **CRC Error!** - ROM checksum error. Contact your local Service Center.

2. **Engine Error!** - device drive error. Contact your local Service Center.

3. **Magnetic Error!** - magnetic sensor error. The device may be affected by a high-power alternating magnetic field (transformers, motors, transceivers). Move the device to another location. If the error message keeps appearing, contact your local Service Center.

4. **Sensor Error! / Optics Error! / IR Error!** - remove foreign objects from the detector path, close the device door completely. If the error message keeps appearing, contact your local Service Center.

To open the door, push it backwards and lift it up.

ATENTION!
Before opening the door, turn off the detector and disconnect the AC adapter from the wall outlet and AC adapter jack of the detector.

DEVICE CARE

For effective operation of the device , it is necessary to clean transportation path and sensors regularly.

ATENTION! NOTE! Cleaning of the mechanism should be performed by authorized Service Centers only

SPECIFICATIONS

Banknote denomination	All USD banknotes issued 1988 and later
Banknote positioning	Lengthwise, face up, black seal forward
Processing rate (max)	75 banknotes/min.
Display	LCD, graphical with backlighting
Power supply	110/220 B ±10%, 50/60 Hz
Current consumption	Not exceeding 250 mA
Dimensions	197x119x80 mm
Operating temperature	+10°C to +35°C
Relative air humidity at + 25 C	40% to 80%
Atmospheric pressure	84 to 107 kPa (630 to 800 mm Hg)
Net weight	Not exceeding 0.65 kg
Gross weight	Not exceeding 1.2 kg

Design and specifications are subject to change without notice for for product improvement.

COMPLETE SET

The delivery set includes:

Device	1 piece
AC Adaptor	1 piece
Automobile adaptor	optional
User manual	1 piece
Package	1 set

TRANSPORTATION AND STORAGE

The device should be packed when stored and transported. Avoid shocks and drops.

Transportation (not more than 7 days) allowable temperature range is -30°C to +50°C, relative air humidity is not more than 98% at +25°C, atmospheric pressure is 84 - 107 kPa (630 to 800 mm Hg).

Storage temperature is +5°C to +40°C (heated storehouses), relative air humidity should not exceed 80% at +25°C.

Shelf life is 2 years.